

Jabiru Service Bulletin: Jabiru Composite Propeller			JABIRU AIRCRAFT PTY LTD P.O. Box 5792 Bundaberg West Queensland, Australia. Phone:+61 7 4155 1778 Fax:+61 7 4155 2669 Web: www.jabiru.net.au Email: info@jabiru.net.au		
JSB 038-1	Release Date: 22nd June 2015	Effective Date: 29th June 2015	Affected Models: See Applicability	S/No. Range: See Applicability	Page 1 of 4

SERVICE BULLETIN: JSB 038-1

Issue: 1

Release Date: 22nd June 2015

Effective Date: 29th June 2015

Subject: Jabiru Composite Propeller

Affected Models: All Jabiru Composite Propellers.

1	APPLICABILITY:.....	1
2	BACKGROUND:.....	1
3	RECOMMENDATIONS:	2
4	COMPLIANCE: IMPLEMENTATION SCHEDULE	2
5	PROCEDURE:.....	3
5.1	OPTION A: 100-HOURLY INSPECTION	3
5.2	OPTION B: ONE-OFF INSPECTION	3
6	AIRWORTHINESS NOTE:	4

1 Applicability:

All models of Aircraft fitted with a Jabiru Composite Propeller. This includes non-Jabiru Airframes fitted with this propeller.

Note: For aircraft in Light Sport Aircraft categories this Bulletin is equivalent to a Manufacturer's Safety Direction.

2200 Engine Propeller P/No. 4A482U0D. S/No. Range: 0001 to 0082

3300 Engine Propeller P/No. 4A484E0D. S/No. Range: 0001 to 0096

2 Background:

- There are 2 versions of the Jabiru composite propeller: one for Jabiru 3300 and another for Jabiru 2200 engines. This bulletin applies to both types.
- The propellers consist of a 2 composites blades clamped into a forged Aluminium hub made up of two halves.
- Usually the blades are pinned so that they are fixed pitch. However when fitted to a different aircraft type the blades may not be pinned and it functions as a ground adjustable propeller.

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- One only instance has occurred where a large crack was found in the rear hub. The crack was identified during an inspection after the pilot noticed unusual vibration. The propeller had completed approximately 400hrs TTIS.
- Inspection and testing of the parts in question have been carried out and several items identified which contributed to the failure. In isolation the effect of each is minor and does not cause an unsafe condition.
- In the rare case where all of these items are present in one assembly they may combine to increase stress in the hub beyond acceptable design levels, ultimately leading to the damage seen.

3 Recommendations:

- **Option A – Recurring Inspection.** Carry out an inspection of the propeller in accordance with Section 5.1 within the timeframe given in Section 4. This inspection must then be repeated at the intervals specified until the propeller can be returned to have the Option A, one-off inspection carried out.
- **Option B – One-Off Inspection.** Contact Jabiru Aircraft (Australia) or local representative and schedule the propeller to return to an authorised organisation for a one-off inspection within the time limits of Section 4. Only Jabiru Aircraft (Australia), Jabiru USA, Jabiru South Africa and approved¹ organisations (in other countries) will be authorised to carry out rectification work to the propellers.

4 Compliance: Implementation Schedule

- Refer to Section 6 for guidance on who may complete the work detailed herein (propeller removal and re-installation).
- Note that Time-In-Service is measured using Hobbs time (not Tacho or Airswitch). Jabiru Service letter JSL010 provides details on service time interval requirements.
- The requirements of this Bulletin (Option A or Option B) are to be carried out in the next 25 hours TIS or 6 calendar months (from the effective date of this bulletin) whichever is the sooner.
- **Option A** – The inspection must be repeated at intervals of no more than 103 hours TIS.
- **Option B** – no recurrence.

¹ Organisations must be approved by Jabiru Aircraft (Australia).

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5 Procedure:

WARNING

DO NOT GO NEAR THE PROPELLER IF THERE IS A PERSON IN OR NEAR THE COCKPIT.

ENSURE AIRCRAFT MASTER AND IGNITION SWITCHES ARE "OFF" BEFORE COMMENCING ANY WORK ON PROPELLER.

DO NOT RUN ENGINE WITH PROPELLER DISCONNECTED OR ENGINE DAMAGE WILL RESULT.

5.1 Option A: 100-Hourly Inspection

- Remove spinner.
- Loosen evenly then remove the 4 centre AN5 nuts that secure the propeller.
- Remove the front spinner mounting plate and washers. Take note of the order and location of the washers.
- Remove the propeller from the engine, taking note of the installation orientation on the propeller flange.
- Visually inspect the hub for visible cracks. See Figure 1.
- If cracking is found, mark the part as UNSERVICABLE and contact Jabiru Aircraft (Australia) for guidance on repair/replacement.
- If no cracking is found, reinstall propeller as per manual JPM0001 Section 4.7.5 "Procedure – Propeller Installation".

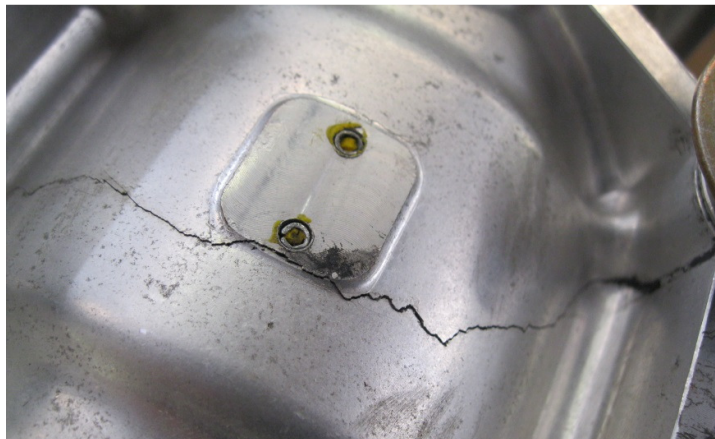


Figure 1: The Crack Detailed in Section 2.

5.2 Option B: One-Off Inspection

- Remove spinner and propeller assembly per manual JPM0001, Section 4.7.2 "Procedure – Removal of Existing Propeller".
- Pack the propeller for shipping and return to Jabiru Aircraft for inspection. Ensure that the packaging protects the propeller – particularly the tips of the blades. Damage accrued during transit remains the sender's responsibility.
- When it returns, reinstall propeller as per manual JPM0001 Section 4.7.5 "Procedure – Propeller Installation".

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6 Airworthiness Note:

- All work called for by this Bulletin must be carried out by authorised personnel. For the aircraft detailed herein this may mean the owner, an RA-Aus Level 2 holder, a Licensed Aircraft Maintenance Engineer (LAME) or equivalent – as appropriate to the aircraft's registration and use (Private or Flight Training operations).
- On completion of the work, the authorised person must note the completion of the actions required by this bulletin in the aircraft's maintenance logbook. This note should include the date of the work and the identity (including licence number where appropriate) of the person carrying out the work.
- All work must be carried out strictly in accordance with Jabiru guidance material, in particular the current, approved revision of the Propeller Technical Manual (Document No. JPM0001) which is available free of charge from the Jabiru Australia Web Page (www.jabiru.net.au).

WARNING

**DEVIATING FROM THE DATA PROVIDED MAY RESULT IN SEVERE DAMAGE TO
PROPELLER AND ENGINE RESULTING IN FAILURE.**

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LSA Service Bulletin: LSA JSB 038-1

Issue: 1

Release Date: 22nd June 2015

Effective Date: 29th June 2015

Subject: Jabiru Composite Propeller

Affected Models: All Jabiru Composite Propellers.

Applicability:

- This Bulletin is applicable to all LSA propellers which fall within the Applicability ranges given in Jabiru Service Bulletin JSB 038-1

Requirement:

- Operators of aircraft within Light Sport Aircraft categories must comply with the requirements of Jabiru Service Bulletin JSB 038-1

Compliance:

- The compliance details given in JSB 038-1 must be met.

Background:

- This LSA Service Bulletin has been prepared to make mandatory the requirements of JSB 038-1 for aircraft operating within Light Sport Aircraft Categories.